

Region 10 Routing and Concurrence

EPA Region 10 Superfund

RELEASABLE

AVESF
8.11.1

Author:	Richard Mednick - ORC	Date:	April 16, 2013 3/31/16 Initial RM
Addressee:	Rick Albright - ECL		
Subject:	Avery Landing Site - Potlatch UAO Amendment		
File Location/Name:	Avery Landing (Removal Action) Site		

CONFIDENTIAL

PROGRAM ADMIN REVIEW:

Name:	Jon Brave					
Initials/Date:	JB 4/17					

PROGRAM OFFICE CONCURRENCE:

Name:	Liverman, Earl	Mednick, Richard	Moon, Wally	Field, Chris	Mackey, Cyndy	Albright
Initials/Date:	WLM 4/17/13	RM 4/16/13	WLM 4/17/13	WLF 4/17/13	CM 4/17/13	4/18

RA OFFICE CONCURRENCE/SIGNATURE:

Name:						
Initials/Date:						

cc(s) (include name, title, organization, mailing address, and email if PDF is required—attach a list if necessary)

bcc(s) (include name, title, organization, mailing address, and email if PDF is required—attach a list if necessary)

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Mailing Deadline:	April 18, 2013	Certified Mail:	
FAX to:		FAX #:	

ADDITIONAL INFO/INSTRUCTIONS:

Sign and date cover letter for Amendment to UAO. Sign and date on page 2 of Amendment to UAO. Following signature, please return concurrence/signature folder with all originals to ORC for mailing and distribution. Please contact Richard Mednick at 1797 if there are any questions. Thank you.

Filing Instructions:	
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TABLE 1

ESTIMATE OF THE EXTENT OF PETROLEUM PRODUCT IN SOIL
 AVERY LANDING SITE
 AVERY, IDAHO

Property	Location	Type ¹	Date Performed	Comments and Descriptions on Investigation Log (Note: specific comments identified in quotations)	Approximate Depth to Groundwater ² (feet)	Soil TPH Analytical Result/Depth ³ (mg/kg / feet)	Observation of Product in Well	Top of Product Contaminated Soil ⁴ (feet)	Bottom of Product Contaminated Soil ⁴ (feet)	Estimated Vertical Extent (Thickness) of Product Contaminated Soil ⁵ (feet)	Comments/Assumptions Concerning Vertical Extent of Contamination
Bentick	EMW-01	MW	4/16/07	Note: No comments concerning observations of contamination on the investigation log.	7.5	13,500 / 2	Not observed	NA	NA	0	The presence of petroleum hydrocarbon contamination not noted on boring log. However, the total petroleum hydrocarbon concentration (i.e., diesel-range + oil-range concentration) (TPH) measured in soil was greater than 10,000 mg/kg indicating likely release at this location. Assume that because product was not observed that remediation likely not required to address release.
Bentick	EMW-02	MW	4/17/07	"Moderate hydrocarbon odor" 5-7 ft "Hydrocarbon product. Sample blocked by cobble, low recovery" 7-9 ft "Not Sampled. Likely fractured rock." 9-16 ft	8	12,400 / 4	Not observed	4	9	5	Investigation log indicates product present at this location at 7-9 ft. Investigation log indicates samples not collected at depth greater than 9 ft. Therefore, vertical extent of contamination may not have been observed in boring. TPH concentration measured in soil was greater than 10,000 mg/kg at 4 ft indicating likely release at this depth. Assume that remediation is required to address likely release at 4 ft depth as well as deeper product. Therefore, assume that the vertical extent of soil requiring remediation is from 4-9 ft.
Potlatch	EMW-03	MW	4/17/07	Note: no comments concerning observations of contamination on the investigation log.	11	40 / 11	Not observed	NA	NA	0	Petroleum hydrocarbon contamination at level that may require remediation not identified.
Potlatch	EMW-04	MW	4/17/07	"Sampler saturated, hydrocarbon sheen on groundwater. Insufficient recovery." 11-13 ft "Oily hydrocarbon product evident on downhole tools." "Insufficient recovery." 13-15 ft "Not sampled" 15-17 ft	11	1,050 / 3	"Thin Layer" "Probe coated in oil like product"	11	15	4.5	Investigation log indicates that sheen is present and sampler is saturated at depth of groundwater at 11-13 ft. Investigation log also indicates "Oily hydrocarbon product" is present on downhole tools from 13-15 ft. However, product on tools may be result of advancing tools through groundwater with product. Investigation log also indicates that sampling was not performed at depth of 15-17 ft. Therefore, vertical extent of contamination may not have been observed. Assume that, because product was noted in investigation log and well, that vertical extent of contamination is 4.5 ft at a minimum due to seasonal groundwater elevation fluctuations.
Potlatch	EMW-05	MW	4/18/07	"Strong hydrocarbon odor" 9-11 ft "Strong hydrocarbon odor" 11-13 ft "Strong hydrocarbon odor and rainbow sheen with drops of black product" 13-15 ft "Not Sampled. Gravel in drill cuttings." 15-19.5 ft	13	14,000 / 9	Not observed	9	15	6	Investigation log indicates sheen and product at 13-15 ft. However, investigation log also indicates samples not collected at between 15-19.5 ft. Therefore, vertical extent of contamination may not have been observed. TPH concentration measured in soil was greater than 10,000 mg/kg at 9 ft indicating likely release at this depth. Assume that remediation is required to address likely release at 9 ft depth as well as deeper product. Therefore, assume that the vertical extent of soil requiring remediation is from 9-15 ft.
Bentick	EMW-06	MW	4/18/07	"Hydrocarbon odor and sheen." 7-9 ft "Hydrocarbon odor and oily liquid present." 9-11 ft "Sample stained black with oily liquid. Insufficient recovery." 11-13 ft "Insufficient recovery" 13-15 ft "Cuttings show oily liquid. Easier drilling. Insufficient recovery" 15-17 ft "Difficult drilling. Insufficient recovery." 17-18.5 ft	11	10,500 / 9	"0.24 ft" "Probe coated in oil and diesel like product"	7	13	6	Investigation log indicates sheen and oily liquid between 7-13 ft. Boring log indicates insufficient recovery from 13-18 ft. TPH concentration measured in soil was greater than 10,000 mg/kg at 9 ft indicating likely release at this depth. Oil and diesel-like product noted in well. Therefore, assume that the vertical extent of soil requiring remediation is from 7-13 ft.
Potlatch	ESB-01	SB	4/18/07	"Hydrocarbon odor and sheen on groundwater" 8.8-9 ft. Note: Investigation log indicates bottom of boring at 9 ft.	8.8	3,150 / 7	NA	8.8	9	4.5	Comment on investigation log appears to indicate contamination at groundwater depth at 8.8-9 ft. However, investigation log indicates bottom of boring at 9 ft. Therefore, vertical extent of contamination may not have been observed. Assume that, because product was noted in investigation log, that vertical extent of contamination is 4.5 ft at a minimum due to seasonal groundwater elevation fluctuations.
Potlatch	ESB-02	SB	4/18/07	Note: Investigation log indicates three attempts at soil boring at this location. However, boring refusal was encountered at between 3 and 5 ft. "burnt wood fragments" 1-3 ft	NA	Not analyzed	NA	NA	NA	Not Completed	Investigation log indicates refusal at between 3 and 5 feet bgs. "burnt wood fragments" noted in soil matrix from 1-3 ft. Utilize information from other locations to evaluate vertical extent of contamination in area of ESB-02.

**EPA Region 10 Superfund
RELEASABLE**

Date 3/31/16
Initial RM

Confidential Attorney-Client Work Product

Property	Location	Type ³	Date Performed	Comments and Descriptions on Investigation Log (Note: specific comments identified in quotations)	Approximate Depth to Groundwater ² (feet)	Soil TPH Analytical Result/Depth ³ (mg/kg / feet)	Observation of Product in Well	Top of Product Contaminated Soil ⁴ (feet)	Bottom of Product Contaminated Soil ⁴ (feet)	Estimated Vertical Extent (Thickness) of Product Contaminated Soil ⁵ (feet)	Comments/Assumptions Concerning Vertical Extent of Contamination
Bentick	TS-03	TP	8/25/09	"Soil appeared stained" 3.5-9.0 ft. "Soil color appeared stained" 12.5-20 ft. "Soil appeared impacted from 3' bgs to bottom of test pit." "Strong petroleum-like odor on samples below 10.5 ft bgs." "Gravel appeared saturated with an oily product."	18	3,210 / 12 (composite sample)	NA	12.5	20	7.5	Investigation log indicates gravel appears saturated with oily product. Investigation log indicates that gravel is present from 12-20 ft. Assume indicates presence of product from 12.5-20 ft. Investigation log indicates bottom of test pit at 20 ft. Therefore, vertical extent of contamination may not have been observed. Assume that soil requiring remediation extends from 12.5-20 ft.
Potlatch	TS-04	TP	8/26/09	"Oil-like odor beginning at approximately 7.5' bgs." "Soil appeared impacted below 12' bgs." "Clay pipe encountered at approximately 8 ft bgs."	16	1,026 / 12 (composite sample of TS-01 and TS-04)	NA	15.9	16	Not Used	Petroleum hydrocarbon contamination at level that may require remediation not identified. However, characterization of soil provided in TS-04 not consistent with descriptions of soil provided in other investigation logs. Therefore, utilize descriptions of soil contamination from adjacent locations to characterize area encompassing TS-04.
Potlatch	TS-05	TP	8/26/09	"Approximately 3" diameter PVC pipe encountered at approximately 7 ft." "Tree trunks, railroad ties and wood beams encountered at approximately 10 ft bgs."	Not recorded, however "wet" at 13.5-16	3,840 / 12 (composite sample)	NA	NA	NA	Not Used	Petroleum hydrocarbon contamination at level that may require remediation not identified. However, characterization of soil provided in TS-05 not consistent with descriptions of soil provided in other investigation logs. Therefore, utilize descriptions of soil contamination from adjacent locations to characterize area encompassing TS-05.
Potlatch	TS-06	TP	8/26/09	"Impacted material and stained soil beginning at 12' bgs." "Heavy oil staining at approximately 14' bgs." "Oily product appeared very viscous. Some free product visible on cobbles and boulders."	20	3,840 / 12 (composite sample)	NA	14	20	4.5	Investigation log indicates presence of oily product / free product on cobbles and boulders. However, investigation log does not identify depth of soil with product. Investigation log indicates bottom of test pit at 20 ft. Assume that, because product was noted in investigation log, that vertical extent of contamination is 4.5 ft at a minimum due to seasonal groundwater elevation fluctuations.
FHA	BH-1	SB	8/28/09	Note: Sheen observed in samples from 7.5-9.0 and 15-16.5 ft. "LNAPL observed in soil at 13 ft bgs." "Small pockets of LNAPL in sample (2cm)." "Petroleum-like sheen on water surface."	16	387 / surface 201 / 7.5 358 / 16	NA	7.5	16.5	9	3 SPT samples were collected from the HSA boring (0-1.5 ft, 7.5-9 ft, 15-16.5 ft) and the boring was completed at 20 feet bgs. Notes concerning sheen indicate that sheen was observed in sample from 7.5-9 and 15-16.5 ft. It is not clear how the determination was made that "LNAPL observed in soil at 13 ft bgs" because this interval was not sampled. It is not clear what the bottom depth of product containing soil is because the interval from 16.5 - 20 ft was not sampled. Assume extent of contamination from first indication of sheen (i.e., 7.5 ft) to bottom of last sample interval (i.e., 16.5 ft).
FHA	BH-2	SB	8/28/09	Note: sheen identified in samples from 9.5-11.0 and 15-16.5 ft. "Petroleum-like product oozing from sand" 15-16.5 ft	15	60 / surface ND / 7.5 71 / 15	NA	9.5	16.5	7	5 SPT samples were collected from the HSA boring (0-1.5 ft, 5-6.5 ft, 7.5-9 ft, 10-11.5 ft, 15-16.5 ft) and the boring was completed at 20 ft. Notes concerning sheen indicate that sheen was observed in sample from 9.5-11 and 15-16.5 ft. It is not clear what the bottom depth of the contaminated soil is because the interval from 16.5 - 20 ft was not sampled. Assume extent of contamination from first indication of sheen (i.e., 9.5 ft) to bottom of last sample interval (i.e., 16.5 ft).
FHA	BH-3	SB	8/27/09	Note: Sheen identified in samples from 7.5-9.0 and 10-11.5 ft. "Dark, fine grained material at 6-7 ft bgs." "Petroleum-like odor and sheen present." 10-11.5 ft "Petroleum-like floating on ground water"	15	91 / surface 50 / 7.5 946 / 15	NA	7.5	15	7.5	4 SPT samples were collected from this HSA boring (0-1.5 ft, 5-6.5 ft, 7.5-9 ft, 10-11.5 ft) and the boring was completed at 15.5 ft. Notes concerning sheen indicate that sheen was observed in sample from 7.5-9 and 10-11.5 ft. It is not clear how the determination was made that "petroleum like" material was floating on groundwater because this interval was not sampled. It is not clear what the bottom depth of contaminated soil is because the boring was completed at 15.5 ft. Assume extent of contamination from first indication of sheen (i.e., 7.5 ft) to bottom of the boring (i.e., 15.5 ft) based on observation of petroleum on groundwater at 15 ft.
FHA	BH-4	SB	8/27/09	Note: sheen identified in samples from 7.5-9.0 and 14.5-15.0 ft. "At about 8' dark bluish black staining, petroleum-like odor and sheen observed." "Petroleum-like odor and sheen present" 14.5-15 ft.	14.5	69 / surface 3,740 / 7.5 19 / 15	NA	7.5	15	7.5	3 SPT samples were collected from the HSA boring (0-1.5 ft, 7.5-9 ft, 14.5-15.0 ft) and the boring was completed at 15 feet bgs. Notes concerning sheen indicate that sheen was observed in sample from 7.5-9.0 and 14.5-15.0 ft. It is not clear how the determination was made that "dark bluish black staining" observed in soil at 8 ft because this interval was not sampled. It is not clear what the bottom depth of impacted soil is because the boring was completed at 15 ft. Assume extent of contamination from first indication of sheen (i.e., 7.5 ft) to bottom of last sample interval / boring (i.e., 15 ft) based on presence of sheen.